

Total Maximum Daily Load (TMDL) Implementation



Indian, Dymer, Tabbs and Antipoison Creeks
Kilmarnock, Virginia

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VA Dept. of Conservation and Recreation
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The TMDL Process: 3 Steps

- 1) TMDL study
- 2) TMDL implementation plan
(clean-up plan)
- 3) Implement plan

DCR-DSWC Regional Office Boundaries

- DCR-DSWC Regional Office Sites

--- Jurisdiction Boundary

--- DCR-DSWC Regional Office Boundary

Potomac Watershed Office
98 Alexandria Pike, Suite 33
Warrenton, VA 20186
Ph: 540/347-6420 Fax: 540/347-6423

Shenandoah Watershed Office
44 Sangers Lane, Suite 102
Staunton, VA 24401
Ph: 540/332-9991 Fax: 540/332-8956

James Watershed Office
101 North 14th Street, 11th Floor
Richmond, VA 23219
Ph: 804/225-4468 Fax: 804/371-0771

York & Rappahannock Watersheds Office
772 Richmond Beach Road/P. O. Box 1425
Tappahannock, VA 22560
Ph: 804/443-6752 Fax: 804/443-4534

New River Watershed Office
148 Broad Street/P. O. Box 1506
Dublin, VA 24084
Ph: 540/643-2590 Fax: 540/643-2597

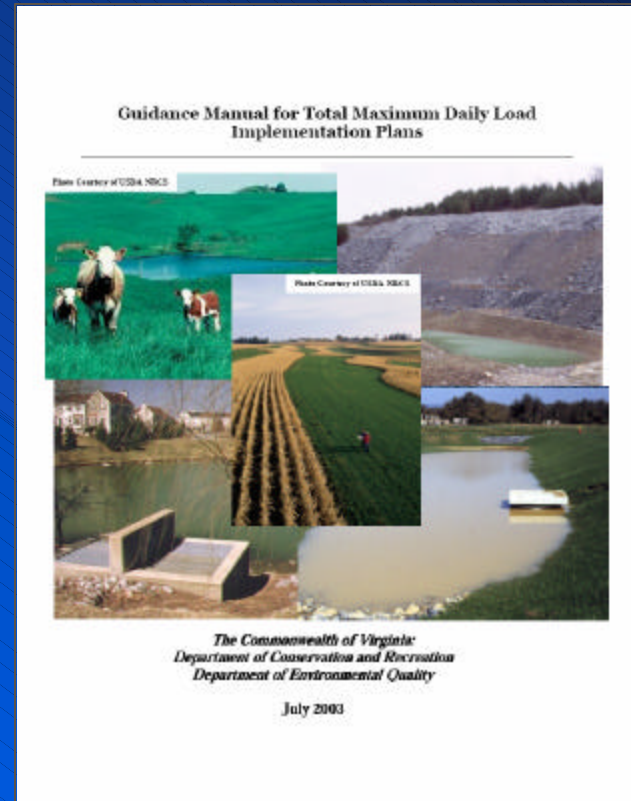
Upper Tennessee & Big Sandy Watersheds Office
252 W. Main Street, Suite 3
Abingdon, VA 24210
Ph: 276/676-5529 Fax: 276/676-5527

Roanoke River Watershed Office
11632 Highway 15 South
Clarksville, VA 23927
Ph: 434/374-3648 Fax: 434/374-3656

Albemarle, Chowan & Coastal Watersheds Office
1548-A Holland Road
Suffolk, VA 23434
Ph: 757/925-2468 Fax: 757/925-2388

Why Implementation Plans?

- Implementation Plan development is required by state legislation
- Supported by federal, state and local organizations
- Procedures outlined in DCR & DEQ Implementation Plan Guidance Document



Implementation Plan Development

- Implementation Plan will be done **locally**
- Stakeholders will have the opportunity to participate in the plan development
 - Public meetings
 - Working groups
 - Steering committee



Integration with other Watershed Plans

- Need to account for and **acknowledge** other planning activities within the watershed
- Coordinate with other water quality plans:
 - Watershed plans/roundtables
 - Local Comprehensive Plans
 - Water Supply Plans
 - Green Infrastructure Planning



What goes into an implementation plan?

- Existing plans or improvement projects
- Actions to improve water quality
- Project timeline
 - Implementation goals
 - Implementation milestones
- Roles and responsibilities
- Funding opportunities

Best Management Practices to Address Bacteria

Agricultural

- Riparian buffers
- Exclusion of livestock from streams
- Rotational grazing
- Waste storage facilities



Photo: Jeff Vanuga, NRCS (2002)

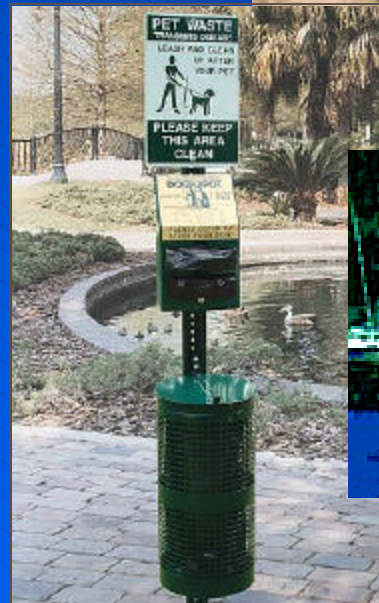
Riparian buffer adjacent to pasture

Best Management Practices to Address Bacteria

Residential

- Septic tank pumpout
- Septic system repair/replacement
- Alternative on-site septic systems
- Pet waste programs
- No-discharge zones

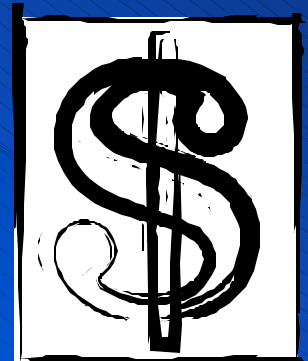
Photo: Julie Jenkins, Shenandoah Valley SWCD



Potential Funding Sources

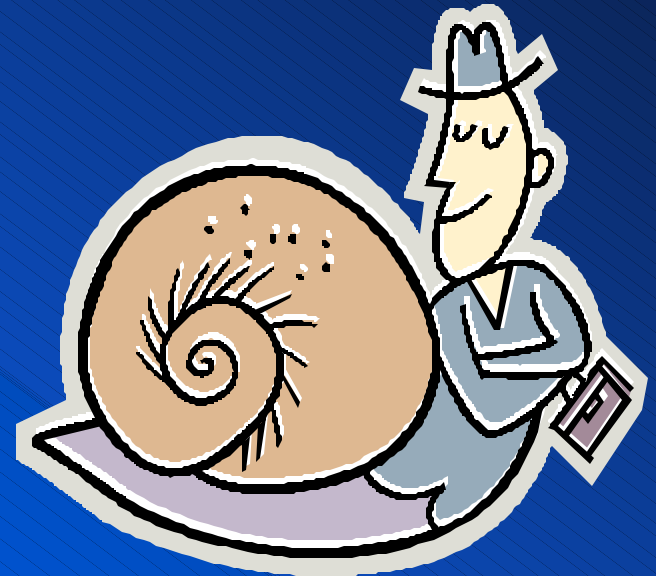
Potential funding sources for best management practices identified in Implementation Plan:

- USDA Programs - CREP/EQIP
- EPA Section 319 Funds
- Water Quality Improvement Fund
- State Revolving Loan Funds
- State Cost-Share Program
- State Tax Credits
- National Fish & Wildlife Foundation



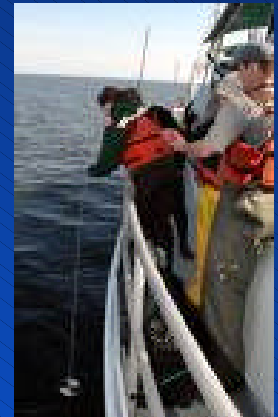
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What can you do in the meantime?

- Show interest to agencies (comments to both DCR/DEQ)
- Continue BMP implementation
- Initiate outreach activities
- Continue stream monitoring
- Identify funding opportunities and partnerships



The \$ Challenge

- Using funds for Implementation Plan development out of the General Assembly 2006-2008 TMDL appropriation, but can only use for funds for Agricultural BMP implementation
- We need a dedicated source of state funds for implementation planning

The Commonwealth of Virginia has established criteria to rank TMDLs for implementation plan development based on:

- Location and Resource Priorities
- Reasonableness of Obtaining Load Allocations
- Implementation Support – strong local interest

In future, may see less for bacteria and more for sediment TMDL's

Currently, DCR has completed 19 IP's, including 47 impaired stream segments

Roanoke (4)

Shenandoah (4)

James (3)

New (3)

Tennessee – Big Sandy (2)

Potomac (1)

Rappahannock (1)

Chesapeake Bay Coastal (1)

3 under development now: Bluestone River, Mossy
Creek and tribs, Upper Hazel River

DEQ has prepared ~14

DCR and DEQ have done 2 together

One last point to remember

TMDL's and IP's are a mechanism for restoring water quality and are an opportunity for diverse groups of people to come together to improve watershed health



Contact Information



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